Remarks/Arguments

Claim Summary

Claims 1, 17, 21, and 26 have been amended to recite that a second etching process is a *wet etching process*. Claim 7 has been amended to correct a minor typographical error.

Claims 1 – 26 are pending in the application.

Allowable Subject Matter

Applicants acknowledge with thanks the indicated allowable subject matters of dependent claims 5-16, 22, 23, and 25.

Claim Rejections - 35 USC § 102(e)

Claims 1- 4, 21 and 24 were rejected under U.S.C. 102(e) as being anticipated by Okada et al. (6,534,397) for reasons detailed in pages 2-4 of the Office Action.

Present amended independent claims 1, 17, 21, 26 recite in part, "performing a second etching process *distinct* from said first etching process, said second etching process *being a wet etching process and* comprising etching the insulation film in which the initial trench has already been formed to thereby enlarge the initial trench." In other words, the second etching process only enlarges the initially formed trench by a wet etching process.

However, the Okada et al. reference is related a dual damascene structure. See Abstract. A dual damascene structure necessary comprises two

openings: a lower via hole and an upper trench. The dual damascene structure is generally used in non-volatile memory devices. In non-volatile memory devices, copper is usually used as a metal interconnect. But because copper does not form a volatile by-product, it is very difficult to etch, and therefore copper metallization schemes cannot be realized using the traditional subtractive etching approach used to form, for example, aluminum metal lines. The Dual Damascene structure overcomes this problem by etching a columnar hole, followed by a trench etch into an inter-layer dielectric (ILD), and then filling both structures with copper which is subsequently polished back (using Chemical Mechanical Polishing (CMP)) to the surface of the ILD. The result is a vertical copper via connection and an inlaid copper metal line.

As disclosed in the Okada et al. reference, the first and second etching processes are accomplished by a plasma etching process. Column 11, lines 3-12, and lines 38-44. A plasma etching process is a *dry etching process*. Therefore, Okada et al. does not anticipate the present invention.

For at least the reasons stated above, the Applicants respectively submit that claims 1- 4, 21 and 24 are patentable over Okada et al.

Restriction/Election

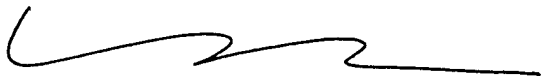
It is the Applicants' position that independent claim 1 is still generic over the subject matters of independent claims 17, 21, and 26. Accordingly, the Applicants respectfully remind the Examiner that if claim 1 is allowable, non-elected claims 17-20 and 26 must be allowed.

Conclusion

No other issues are remaining, reconsideration and favorable action upon claims 1-26 now present in the application are requested.

Respectfully submitted,

Volentine Francos & Whitt, PLLC



Linus Y. Park
Reg. No. 45,261

Date: February 28, 2005

One Freedom Square
Suite 1260
11951 Freedom Drive
Reston, VA 20190
Tel. (571) 283-0720
Fax (571) 283-0740